

REMARKS

Claims 1-22 are pending. Claims 1, 5, and 13 have been amended and claims 23-27 have been cancelled. It is respectfully submitted that the amendments presented in this paper raise no new issues requiring further searching or consideration by the Examiner, as all features added by amendment were recited in one or more claims which have previously been considered by the Examiner.

Reconsideration of the application is respectfully requested for the following reasons.

On October 15, 2002, the Examiner graciously extended Applicant's representative a telephone interview to discuss the rejections in the Final Office Action. During the interview, the Davis patent was specifically discussed. This patent discloses a system which sends a data packet from a transmitter to a receiver, detects that a portion of the data packet was not successfully received, and then resends only that portion of the data packet that was unsuccessfully received from the transmitter to the receiver.

Figure 1 of the Davis patent discloses the manner in which incorrectly received data is retransmitted between a sender 12 and a receiver 14. As shown, the sender and receiver are connected by a plurality of data channels. Data channel 15 is used to transmit original packet data from the sender to the receiver. When packet data is incorrectly received, sender 12 resends the incorrectly received data over a different channel than the channel over which the original data is transmitted. This different channel corresponds to data link 17.

One of the advantages of the claimed invention is to increase the efficiency of sending video data between terminals. This is accomplished, in at least one way, by minimizing the number of communications links used to transmit data between the sender and receiver. In accordance with one embodiment, the invention resends the data that was incorrectly received over the same channel that is used to send the original data. More specifically, the invention multiplexes the requested data and the data to be currently sent over a single channel to a receiver. By using one channel to transmit both original and resent data, the claimed invention advantageously reduces the number of communications links required in the system. This, in turn, results in improving transmission efficiency. The above-noted differences between the invention and Davis are recited in the amended claims.

Specifically, claim 1 recites a data resending method, comprising sending a sender a resend request message of a data and sending the requested data with data to be currently sent. The sending step includes "*multiplexing the requested data and the data to be currently sent over a single channel to a receiver.*" The Davis patent does not teach or suggest these features. As shown in Figure 1, the Davis system uses separate data channels 15 and 17 to transmit original and resent data. This increases the cost and complexity of the Davis system, both of which degrade system efficiency. The claimed invention overcomes these drawbacks by using a single channel for transmitting both original and resent data. For at least these reasons, it is respectfully submitted that claim 1 and its dependent claims are allowable over Davis.

Claims 5 and 13 have been amended to recite features similar to those which patentably distinguish claim 1 from the Davis patent. It is therefore respectfully submitted that these claims and their dependent claims are allowable.

At the conclusion of the Interview, the Examiner indicated that he would postpone his decision to allow the claims until he had a chance to review the amendments presented herein. In this regard, it is noted that the Examiner did not reject any of claims 23-27 over any reference, but only subjected these claims to a §112, second paragraph rejection. Since features similar to those recited in claims 23-27 have been incorporated into the independent claims and since amendments have been made to overcome the §112, second paragraph rejection, it is respectfully submitted that claims 1, 5, and 13 recite allowable subject matter along with their dependent claims. The rejections in the Final Office Action will now be specifically addressed.

In the Final Office Action, the Examiner rejected claims 1-27 under 35 U.S.C. §112, second paragraph, on grounds that using the term "with" to indicate how the resent data is transmitted with the data to be currently sent is unclear. Claims 1, 5, and 13 have been amended to recite that the term "with" means that the requested data and data to be currently sent is multiplexed over a single channel. Support for this amendment may be found, for example, at page 14, lines 15-19, and page 15, lines 5-10, of Applicant's specification.

It is respectfully submitted that the foregoing amendments and remarks are sufficient to overcome the §112, second paragraph, rejection.

The Examiner rejected claims 1, 2, 5, and 6 under 35 U.S.C. §102(e) for being anticipated by the Davis patent. Applicant traverses the rejection of these claims for the reasons discussed above in connection with the interview conducted with the Examiner. To reiterate, the Davis patent fails to disclose at least the following recitation: "said sending step including multiplexing the requested data and the data to be currently sent over a single channel to a receiver."

Similarly, claim 5 recites: "wherein said step of sending the requested video data includes multiplexing the requested video data and the video data to be currently sent over a single channel to the receiver." None of these features are disclosed by Davis.

Because the Davis patent does not recite all the features of claims 1 and 5, it is respectfully submitted that the Davis patent cannot anticipate these claims. It is further submitted that the foregoing differences are sufficient to render claims 1 and 5 and their dependent claims non-obvious and thus patentable over Davis patent.

The Examiner rejected claims 3, 4, 7-11, and 15 under 35 U.S.C. §103(a) for being obvious in view of the Davis patent. Claims 3, 4, and 7-11 ultimately depend from claims 1 and 5. It is therefore respectfully submitted that these claims are patentably distinguishable from Davis based on this dependency and for the reasons set forth in Applicant's previous replies.

The Examiner rejected claims 13, 14, and 16-19 under 35 U.S.C. §103(a) for being obvious in view of a combination formed between the Davis and Langmann patents. Applicant traverses this rejection for the following reasons.

Claim 13 recites that the data sending processor is configured to multiplex the requested video data and video data to be currently sent from said at least one buffer to the receiver over a single channel. As previously discussed, the Davis patent does not teach or suggest these features. In order to render claim 13 obvious, the Langmann patent must therefore make up for the deficiencies of Davis.

The Langmann patent was cited for its disclosure of compression/decompression and encoding/decoding algorithms. The Langmann patent, however, does not teach or suggest the features of the claimed invention missing from the Davis patent, i.e., multiplexing requested video data and video data to be currently sent from said at least one buffer to the receiver over a single channel. Absent a teaching or suggestion of these features, it is respectfully submitted that a Davis-Langmann combination cannot render claim 13 or any of its dependent claims obvious.

Reconsideration and withdrawal of all the rejections and objections made by the Examiner is hereby respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of the application is respectfully requested.

Should the Examiner believe that further amendments are necessary to place the application in condition for allowance, or if the Examiner believes that a personal interview would be advantageous in order to more expeditiously resolve any remaining issues, the

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Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. §1.136. Please charge any shortage in fees due in connection with this application, including extension of time fees, to Deposit Account No. 16-0607 (Attorney Docket No. K-074) and credit any excess fees to the same Deposit Account.

Respectfully submitted,



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Marked-Up Version of the Amended Claims

1. (Twice Amended) A data resending method, comprising:
sending a sender a resend request message of a data; and
sending the requested data with data to be currently sent, said sending step including multiplexing the requested data and the data to be currently sent over a single channel to a receiver.

5. (Twice Amended) A video data sending and resending method between a coder and decoder, comprising:
storing video data in at least one buffer;
packetizing the video data from said at least one buffer and sending the resultant video data packet to a receiver;
sending to a sender a resend request message of video data if an error is detected in the sent data; and
sending the requested video data with video data to be currently sent from said at least one buffer to the receiver, wherein said step of sending the requested video data includes multiplexing the requested video data and the video data to be currently sent over a single channel to the receiver.

13. (Amended Three Times) A video coding and decoding system, comprising:
at least one buffer;
a video data coding processor storing a compressed video data in said at least one buffer;
a data sending processor configured to packet the video data from the at least one buffer and transmit the video data packets to the receiver; and

a data receiving processor configured to receive the video data packets and send a resending request message of a video data if an error is detected, wherein the data sending processor is further configured to [send] multiplex the requested video data [with] and video data to be currently sent from said at least one buffer to the receiver over a single channel.